REMARKS

In the Office Action, the Examiner objected to claims 26 and 31-33 and rejected claims 1-25, 27-30 and 34-36.

Claim 36 has been amended. Claims 37-39 have been added. Thus, claims 1-39 are pending in the application. Reconsideration of the application is respectfully requested based on the following remarks.

Claim Rejections – 35 USC 102 & 103

Claims 1, 5-13, 16-19 have been rejected under 35 U.S.C. 102(b) as being anticipated by *Bertram* (5,613,137).

Claim 15 has been rejected under 35 U.S.C. 103(a) as being unpatentable over *Bertram*.

In contrast to *Bertram*, claim 1 (and its dependents), specifically requires, "...a controller that divides the surface of the touch pad into logical device units..." *Bertram* does not teach or suggest mapping the touch pad into logical device units. In *Bertram*, the touch pad is mapped into random shapes that encompass multiple sensitive areas. Furthermore, the shapes are separated by null regions that null out any signals generated therefrom. Thus, only a portion of the touch pad is enabled, and the portion of the touch pad that is enabled is a random shape. Accordingly, the rejection is unsupported by the art and should be withdrawn.

Although the rejections to the dependent claims should be withdrawn for at least the reasons as above, it should be noted that they offer additional language that is unsupported by the art. For example:

In contrast to *Bertram*, claim 5 specifically requires, "...the controller further determines if a significant change has been made between the current and last received native values, and only reports the new value when a significant change has been made between the current and last received native values..." In *Bertram*, the coordinate determining circuitry 202 uses a time based expiration signal 209 generated every 100 ms to detect a change in the touch location of

the finger (see Col. 15, lines 49-57). *Bertram* however is completely silent to only reporting the touch location when the touch location has changed significantly. It appears that the touch location determined every 100 ms is always reported. Accordingly, the rejection is unsupported by the art and should be withdrawn.

In contrast to *Bertram*, claim 7 specifically requires, "...the native sensor coordinates are polar coordinates." As shown in Fig. 4 of *Bertram*, the sensitive areas illustrated with dots are laid out in rows and columns. Accordingly, the rejection is unsupported by the art and should be withdrawn.

In contrast to *Bertram*, claims 8 and 9 that requires, "...wherein the logical device units are Cartesian coordinates," and "...wherein the logical device units are Polar coordinates...' respectively. As shown in Fig. 4 of *Bertram*, the mapping is not down in accordance with a coordinate system, but rather random shapes such as arrows and circles. Accordingly, the rejection is unsupported by the art and should be withdrawn.

In contrast to *Bertram*, claim 12 specifically requires, "...wherein the new value of the logical device units are reported in a Cartesian absolute mode, a Cartesian relative mode, a Polar absolute mode or a Polar relative mode." Accordingly, the rejection is unsupported by the art and should be withdrawn.

Claims 29-30, 34-36 have been rejected under 35 U.S.C. 102(b) as being anticipated by *Yates* (6,750,803).

While *Yates* may disclose mapping the area of a touch pad to the area of a display screen and providing discrete icons within the touch pad surface, *Yates* does not teach or suggest "...determining the difference in user location by comparing the current user location to a last user location ...only outputting the current user location when the difference in user location is larger than a threshold value ..." as required by claim 29 (and its dependents). In *Yates*, in an absolute mode, the touch pad functions like a set of discrete virtual control buttons where pressing the touch pad in the zone of a virtual control button transmits a control signal for that virtual control button. Thus, there is no comparison between current and last user location. In relative mode, *Yates* only describes moving an object on a display screen corresponding to the location of the touch on the touch pad. Again, there is no comparison between current and last

user location. It should be further pointed out that *Yates* is completely silent to using thresholds. Accordingly, the rejection is unsupported by the art and should be withdrawn.

Although the rejections to the dependent claims should be withdrawn for at least the reasons as above, it should be noted that they offer additional language that is unsupported by the art. For example, in contrast to *Yates*, claim 30 specifically requires, "...wherein the threshold value is defined as the number of sensor levels that need to change in the touch pad in order to report a change in the user location." Again, *Yates* is completely silent to thresholds and thus how thresholds are defined. Accordingly, the rejection is unsupported by the art and should be withdrawn.

Also in contrast to *Yates*, claim 35 specifically requires, "...the message comprising: an event field identifying whether the message is a touch pad event or a button event; an event identifier field identifying at least one event parameter, each event parameter having an event value, the event value for a touch pad event parameter indicating an absolute position, the event value for a button event parameter indicating button status." It appears that *Yates* is completely silent to message formats. The Examiner is directed to Fig. 7 of the present invention. Accordingly, the rejection is unsupported by the art and should be withdrawn.

Also in contrast to *Yates*, claim 36 specifically requires, "...the touch pad system including a touch pad whose entire touch sensing surface is divided into a plurality of independent and spatially distinct actuation zones, each of which includes a plurality of sensing nodes of the touch sensing surface, and each of which represents a different control function. While *Yates* may disclose providing discrete icons within the touch pad surface, *Yates* does not teach or suggest dividing the entire touch surface into icons. See for example Figs. 7 and 8 of *Yates*, which show spaces in between icons. Accordingly, the rejection is unsupported by the art and should be withdrawn.

Claim 14 has been rejected under 35 U.S.C. 103(a) as being unpatentable over *Bertram* in view of *Matzke* (4,736,191).

Matzke does not overcome the deficiencies of *Bertram*. Both references completely fail to teach or suggest the limitations of independent claim 1 as described above.

Claims 2-4, 20-25, 27-28 have been rejected under 35 U.S.C. 103(a) as being unpatentable over *Bertram* in view of *Yoshinobu* (5,777,605).

In contrast to both references, claim 20 (and its dependents) specifically requires, "...filtering the native values of the native sensor coordinates based on the type of events that occur on the touch pad..." *Bertram* is completely silent to filtering, and while *Yoshinobu* may mention filtering signals as indicated in Col. 6, lines 8-14, *Yoshinobu* does not teach or suggest that filtering is based on the type of events that occur on the touch pad. In fact, *Yoshinobu* is completely silent to any details associated with filtering as for example what is being filtered. Accordingly, the rejection is unsupported by the art and should be withdrawn.

Although the rejections to the dependent claims 21-25 and 27-28 should be withdrawn for at least the reasons as above, it should be noted that they offer additional language that is unsupported by the art. For example, in contrast to both references, claim 23 specifically requires, "...wherein the new value has the same units as the native values..." and claim 25 specifically requires, "...wherein the step of filtering comprises: determining if the native values are caused by noise events or actual events; and filtering out noise events and passing actual events." Again, both references fail to disclose anything regarding filtering as for example filtering out noise events and passing actual events. Accordingly, the rejections are unsupported by the art and should be withdrawn.

With regards to the other set of claims (2-4), *Yoshinobu* does not overcome the deficiencies of *Bertram*. Both references completely fail to teach or suggest the limitations of claim 1. Furthermore, *Yoshinobu* does not teach or suggest "...determining if the native values are based on noise events or actual events," and "...the controller filters out the noise events and allows the actual events to pass through." as required by claims 3 and 4, respectively.

Allowable Subject Matter

Claims 26 and 31-33 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

SUMMARY

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP

Quin C. Hoellwarth
Reg. No. 45,738

P.O. Box 70250
Oakland, CA 94612-0250
(650) 961-8300